Answers to Chapter 15 Review

1. Explain how to use grips to identify the location of a point and the dimensions of an object.
   
   *Answer:* To identify the location of a point that corresponds to an object grip, confirm that the coordinate display field in the status bar is on. Then pick the object to activate grips and hover over a grip. The exact coordinates of the point appear in the coordinate display field. Dynamic input does not have to be active to identify the coordinates of a grip point, but it must be active to view relevant dimensions between grips. Pick the object to activate grips and hover over a grip to display dimensions.

2. What types of information does the **Distance** option of the **MEASUREGEOM** command provide?
   
   *Answer:* The **Distance** option of the **MEASUREGEOM** tool provides the distance between two points, the angle of the line in the XY plane, the angle of the line from the XY plane, and delta X, Y, and Z values.

3. What information does the **Area** option of the **MEASUREGEOM** command provide?
   
   *Answer:* The **Area** option provides the area encompassed by a series of picked points or the area of a selected object.

4. To add the areas of several objects when using the **Area** option of the **MEASUREGEOM** command, when do you select the **Add area** function?
   
   *Answer:* At the first prompt after entering the **Area** option.

5. Explain how measuring the area of a polyline using the **Area** option of the **MEASUREGEOM** command is different from measuring the area of an object drawn with the **LINE** command.
   
   *Answer:* Picking a polyline object in one location allows you to select the entire object for adding and subtracting operations. If the object is drawn with the **LINE** command, each individual line segment must be selected.

6. What is the purpose of the **LIST** command?
   
   *Answer:* **LIST** enables you to display data about any object.

7. Describe the meaning of **delta X** and **delta Y**.
   
   *Answer:* Delta X represents the horizontal distance between the “from” and “to” points of an object, such as a line. Delta Y represents the vertical distance between the “from” and “to” points.

8. What command, other than **MEASUREGEOM** and **AREA**, provides the area and perimeter of an object?
   
   *Answer:* **LIST**

9. What is the function of the **DBLIST** command?
   
   *Answer:* It allows you to list all the data pertaining to every object in the current drawing.

10. Which command allows you to list drawing aid settings for the current drawing?
    
    *Answer:* **STATUS**
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11. What information does the **TIME** command provide?
   *Answer:* The **TIME** command provides the current time and time related to the current drawing session, such as the drawing creation time, the time the drawing was last updated (saved), the total editing time for the drawing, the time related to the elapsed timer, and the next time an automatic save will occur.

12. When does the drawing creation time start?
   *Answer:* When you begin a new drawing.

13. What term describes a text object that displays a set property, setting, or value for an object?
   *Answer:* Field

14. List three ways to open the **QuickCalc** palette.
   *Answer:* Pick **Quick Calculator** from the **Palettes** panel on the **View** ribbon tab, enter **QUICKCALC** or **QC** at the keyboard, or use the **[Ctrl]+[8]** key combination.

15. Name the four sections of the **QuickCalc** palette.
   *Answer:* **Number Pad**, **Scientific**, **Units Conversion**, and **Variables**

16. Give the proper symbol to use for the following math functions:
   *Answer:*
   - A. Addition: +
   - B. Subtraction: –
   - C. Multiplication: *
   - D. Division: /
   - E. Exponent: ^
   - F. Grouped expressions: ( )

17. Under which section of the **QuickCalc** palette can you find the square root function?
   *Answer:* **Number Pad**

18. Under which section of the **QuickCalc** palette can you find the arccosine function?
   *Answer:* **Scientific**

19. When using one of the scientific functions, which should you do first: pick the scientific function button or type in the value to use in the input box? Why?
   *Answer:* Type the value to be used first, and then pick the scientific function button. If you pick the function button first, a value of 0 is entered automatically and usually needs to be changed.

20. Name the four types of units that you can convert using **QuickCalc**.
   *Answer:* The four types of units that can be converted are **Length**, **Area**, **Volume**, and **Angular**.

21. What term describes a text item that represents another value and can be accessed later as needed?
   *Answer:* Variable
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22. Which QuickCalc button passes the value in the QuickCalc input box to respond to a prompt?
   Answer: Paste value to command line

23. How can you start QuickCalc while a command is active?
   Answer: Start the tool. When prompted for the value that needs to be calculated, right-click and select QuickCalc, or type 'QC.'

24. When using QuickCalc while a command is active, how do you pass the value to respond to a prompt?
   Answer: Press the Apply button.

25. When the Properties palette is open, what do you need to do first to see the calculator icon to use QuickCalc?
   Answer: Pick a field containing a numeric value.